

**Opening Statement by CARB Chair Nichols to the Bundestag (German
Parliament) 5th Inquiry Commission—March 6, 2017**

Good evening, Mr. Chairman and esteemed members of the Committee. Thank you for the opportunity to speak with you today.

My name is Mary Nichols, and I am the Chair of the California Air Resources Board, or “CARB.” This is a position to which I have been appointed three times by two Governors of different political parties. I was first appointed by Democratic Governor Jerry Brown in 1975 where I served as a member of the board and then as Chair until 1983. I have been back at the helm of CARB since 2007 when I was appointed by Republican Governor Arnold Schwarzenegger to help guide implementation of California’s landmark climate change legislation. I was then re-appointed by his successor and my former boss Governor Jerry Brown when he took office for a third term in 2011. Throughout my career as an environmental attorney, I also served as Assistant Administrator for the U.S. Environmental Protection Agency's Air and Radiation program under President Bill Clinton, as well as Secretary for California's Resources Agency and Director of the Institute of the Environment at the University of California, Los Angeles.

This year, CARB is celebrating its 50th anniversary. Fifteen other political appointees, including two elected members from our legislature, and I constitute an independent board responsible for California’s clean air and climate policies. I am meeting with you today because we recognize the importance of sharing openly the many valuable lessons we have learned in the process of designing and enforcing our vehicle emissions regulations. And, more specifically, I am here for the reason CARB

came to your attention – to explain how we uncovered and resolved the Volkswagen diesel violations. I recognize that CARB has a responsibility to engage with you and others to help understand how lessons learned may apply more broadly to future vehicle emission certification – or “type approval,” as you generally call it in Europe – as well as audit and compliance testing for all kinds of vehicles, not just diesel cars. But I will come back to that point a little bit later.

Our agency was established under then-California Governor, Ronald Reagan, and it was the first air agency of its kind in the United States – predating the U.S. Environmental Protection Agency. In recognition of California’s early efforts and extraordinary air quality challenges, CARB has unique authority under the United States Clean Air Act to regulate emissions more stringently than the federal government from certain sources, including passenger vehicles, heavy-duty trucks, and certain off-road vehicles and engines.

Over that time, we have significantly reduced air pollution in the state. Today’s cars are 99 percent cleaner than they were when we got started. And the emission controls that we first rolled out in California 50 years ago, like the exhaust catalyst, have now spread all over the world. We have cut toxic diesel particulate matter and nitrogen oxides, or NO_x, emissions from heavy-duty vehicles significantly – by 80 percent and 60 percent, respectively, since 1990. We have done all of this while our population and vehicle miles traveled have increased steadily, and while building an economy that is the sixth (6th) largest in the world.

The result of our efforts over the past five decades has been significant improvements in air quality, with demonstrable health benefits, including among children and other vulnerable populations.

Still, we have more to do. Today, about one-third of our 38 million residents live in regions that remain out of compliance with health-based air quality standards. So we are steadily moving forward, with a keen focus on reducing emissions from transportation – which is responsible for the vast majority of the smog-forming pollution in our State, is the principal source of urban pollution and exposure, and when you include fuel production, accounts for about half of our greenhouse gas emissions. I'll come back to this in a minute.

But first, I want to reflect on how we have come as far as we have over the last half century. I think it's fair to say that CARB is one of the most influential and effective environmental regulatory bodies in the world. We've been able to make progress because the policies adopted by my board are based on sound science and thorough public processes. And because policy making, like setting more stringent new vehicle emission standards, is only the tip of the iceberg, we back up our rules with rigorous certification, inspection, monitoring, verification, and enforcement. Active study of vehicle emission control technologies and robust surveillance and compliance testing in our laboratories by a large, dedicated team of technical experts underlies all that we do. It usually goes unnoticed, but has now been thrust into the global spotlight.

We became interested in testing diesel cars because we identified modern clean diesel technology as a low-carbon solution in our light-duty vehicle GHG standards. Our testing of the Volkswagen diesels started very simply as a straight-forward research

effort intended to improve our understanding of the technology. And contrary to some opinions, we did not target the European diesel auto makers. For our research, we simply procured the diesel cars that were most readily available. Once our research results pointed conclusively to some serious discrepancies in the emission performance of the Volkswagen vehicles, we opened a formal emission compliance testing investigation, which culminated in the company's admission of the presence of the defeat device.

It was no accident that CARB uncovered the deception by Volkswagen. We developed and applied new tools and methods for testing vehicle emission control systems, which pulled from our experience in developing and implementing California's On-Board Diagnostics Program – which is another California invention that is now in most modern cars around the world.

Under California Law and our vehicle emission regulations, CARB has the legal authority to challenge a vehicle in any testing configuration in the lab or on the road and, perhaps most importantly, to openly ask questions – lots of questions, from an auto maker. In the end, vehicle certification for an auto maker is not granted until all of our technical questions are resolved or satisfactorily addressed.

Recognizing the limitations of Portable Emission Measurement Systems, or PEMS, we developed complementary emissions laboratory testing methods and dynamometer cycles to arrive at a better understanding of the potential reasons for excess emissions in the Volkswagen case. This is another important point I would like to emphasize for you. I am aware that Europe is developing new in-use requirements based on PEMS under your real-world driving emission standards, or RDE. PEMS is a

powerful tool, but it is not a silver bullet. PEMS cannot tell you why or how excess emissions are occurring, only that they are occurring. Therefore, just like California, I think Europe should consider an independent authority that can test, question, recall, and take legal action to preserve the integrity of emission standards. These were key factors that allowed us to effectively deal with, and resolve, the Volkswagen violations once we discovered them.

Once the notices of violation were issued, we worked for over a year, in partnership with the California Attorney General and United States federal government, to reach landmark settlements that fully resolve the environmental violations– which affected approximately 85,000 vehicles in our State.

The settlements fall into four categories and fully offset the excess emissions and restore the damage done to our air quality. The first consent decree was a joint settlement between California, the U.S. government, and Volkswagen to resolve the violations associated with the 2.0L diesel engines. It includes \$381 million to be paid into a Trust to mitigate the excess NOx emissions in California. In addition, Volkswagen must make an investment of \$800 million to support markets for zero emission vehicles in California over 10 years.

The second consent decree resolves the violations associated with 3.0L diesel engines and California's share is approximately \$41.8 million for mitigation efforts.

The third consent decree is a \$25 million California-specific settlement for zero emission vehicle-related projects for low-income Californians.

Finally, there are civil penalties of \$154 million.

On the consumer side, the settlements include \$10 billion nationally for compensation and provisions for a buy-back or an approved fix for affected vehicles. We are currently working on implementing the consent decree and continue to work with Volkswagen and their new company, Electrify America.

Unfortunately, however, we suspect the Volkswagen cheating may not be an isolated case. Recently, we issued a Notice of Violation for some Fiat/Chrysler diesel trucks with undisclosed emissions controls, and that investigation is currently underway. In general, we intend to investigate other diesel vehicles. And because, just like you, we also suspect there may be discrepancies in the performance of some gasoline vehicles, we are also taking a closer look at gasoline cars as well.

Our approach is to trust, but verify. That means the auto makers are required to submit information in their applications for certification. We trust that the information is true and valid. But we will continue to verify using our facilities, methods, and tools that are part of our very active surveillance and compliance programs.

This year, we will also begin a more focused effort to revamp our certification and apply the many valuable lessons we have learned. We will continue using our existing inspection and maintenance program to screen vehicles, while at the same time, exploring new uses of tools like Remote Sensing Devices (or RSD) to screen large numbers of in-use vehicles and identify vehicles of interest for further evaluation. We will continue to make extensive use of PEMS, and when needed, bring vehicles to our laboratory for dynamometer testing and OBD interrogation. These are all topics that we would like to discuss with our European counterparts and expect to begin doing so at various venues this year.

Of course, the cheat-proof alternative to combustion is electric vehicles – both battery electric cars and fuel cell cars. Just like your counterparts in the Bundesrat have called for all new cars in Europe to be zero emission vehicles by no later than 2030 – and Norway, Netherlands, and others staking out similar goals – we are keenly focused on transitioning fully to electrified transportation in California as quickly as possible. Through our Zero Emission Mandate and multiple supporting policies like investments in infrastructure and rebates, we have targets for full electrification of our light duty fleet.

Our efforts, in many ways, align with yours. In fact, we are working directly together through the International ZEV Alliance toward this common goal. And just like Germany has committed to supporting vehicle purchase incentives, infrastructure development, and electrifying the government fleet – with a goal of putting at least 1 million ZEVs on the road by 2020 and 6 million by 2030 – we are taking a similar approach in California.

We have established goals of infrastructure to support 1 million vehicles by 2020, put at least 1.5 million vehicles on the road by 2025, and we know we need to get more than 4 million ZEVs by 2030 if we're going to meet our air quality and climate goals. To date, hundreds of millions of dollars from public and private sources has been invested in infrastructure, and our electric utilities are proposing to spend \$1 billion more over the next 5 years. These investments will be in addition to any that are made pursuant to the Volkswagen settlement.

Through the Plug-In Electric Vehicle Collaborative and Fuel Cell Partnership, public agencies and private companies have been working together for years to address market barriers. We are now getting ready to transition some of these efforts into a

broad public education and outreach campaign through a new non-profit – Veloz. And through the Governor's ZEV Action Plan, state agencies have committed to nearly 200 specific actions to accelerate market development for these vehicles.

We need to also make a clear, long-term commitment to vehicle purchase incentives, and we need to take steps to reduce near-term electricity costs for beneficial, new sources of electricity demand, like electric cars. If we do these things, we can definitively tip the scales for electric cars and make sure that they are more affordable for consumers from now on. This is critical for us – in order to provide clean air in our state, adequately address climate change, reduce transportation costs, boost the economy, and to make clear to automakers once and for all that their successful future lies in the cleanest, electrified technologies.

Thank you. I am happy to take your questions.